

APPARATUS AND METHOD FOR PERFORMING SECURITY AND  
CLASSIFICATION FUNCTIONS IN A MULTIPROCESSOR ROUTER

ABSTRACT OF THE DISCLOSURE

A router for interconnecting external devices coupled to the router. The router comprises: 1) a switch fabric; and 2) a plurality of routing nodes coupled to the switch fabric, wherein each of the plurality of routing nodes comprises packet processing circuitry for transmitting data packets to, and receiving data packets from, the external devices and for transmitting data packets to, and receiving data packets from, other ones of the plurality of routing nodes via the switch fabric. The packet processing circuitry comprises: i) a first network processor comprising a first plurality of microengines, each of the first plurality of microengines capable of performing security and classification functions associated with the data packets; and ii) a second network processor comprising a second plurality of microengines, each of the second plurality of microengines capable of performing security and classification functions associated with the data packets.